



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
REGION 6  
1201 ELM STREET, SUITE 1200  
DALLAS, TEXAS 75270-2102

August 2, 2019

Mr. Jeff Ballard  
President and CEO  
Texas GulfLink, LLC  
8333 Douglass Ave, Ste 400  
Dallas, TX 75225

RE: New Source Review Air Permit Application Completeness Determination

Dear Mr. Ballard:

EPA has reviewed your Prevention of Significant Deterioration (PSD) permit application as well as your Title V operating permit application for the Texas GulfLink, LLC (GulfLink) project. The project application was received by the EPA on July 3, 2019. The EPA has determined that your application is incomplete at this time. Enclosed with this letter is a list of the information needed from you so we can continue our review. Please notify us if a complete response is not possible by September 1, 2019.

The requested information is necessary for us to develop a Statement of Basis and rationale for the terms and conditions for any proposed permit. As we develop our preliminary determination, it may be necessary for us to request additional clarifying or supporting information. If the supporting information substantially changes the original scope of the permit application, an amendment or new application may be required.

EPA may not issue a final permit without determining that there will be no effects on threatened or endangered species or their designated critical habitat, or until it has completed consultation under Section 7(a)(2) of the Endangered Species Act (ESA) (16 USC § 1536). In addition, EPA must undergo consultation pursuant to Section 106 of the National Historic Preservation Act (NHPA) (16 USC § 470f). As a cooperating federal review agency, EPA will be working with the U.S. Coast Guard (USCG) and the U.S. Maritime Administration (MARAD) to assist in the GulfLink Deepwater Port Act (DPA) License Application review and the development of an Environmental Impact Statement (EIS). EPA will rely on the review and concurrences received in the development of the EIS to fulfill other the regulatory obligations such as ESA and NHPA.

If you have any questions concerning the review of your application, please feel free to contact Cynthia Kaleri, Air Permits Section Chief, at (214) 665-6772, or Brad Toups of the Air Permits Section at (214) 665-7258.

Sincerely,

8/2/2019

**X** Jeffery J. Robinson

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Jeffrey J. Robinson

Signed by: JEFFERY ROBINSON

Branch Chief

Air Permits, Monitoring & Grants Branch

Enclosure

**ENCLOSURE**  
**EPA Region 6 PSD Permit Application Completeness Review Comments**  
***Texas GulfLink LLC (GulfLink)***

**General Preconstruction Authorization Related**

- 1) Please provide additional supporting technical documentation to allow for the verification of the basis for the emission calculations. Specifically, the true vapor pressure of the crude oil (psia), molecular weight of vapors (lb/lb-mole), material composition data of the associated emissions (speciated) for the crude oil/condensate proposed to be used for the export operation. Please include information of the full range of material which may also include any sour crude (such as West Texas Sour) or Bakken or other similar tight, higher vapor pressure and higher gas/oil ratio crude oil. In the application, emissions calculations related to the crude oil proposed to be handled relies largely on AP 42 factors, yet the project description clearly suggests that clearing an excess of shale play and other newly online domestic crude sources would indicate that the crude characterization might be substantially different, including sulfur content and vapor pressure than that referenced by AP42. Please provide a means by which key emission related factors of crude will be determined and documented in operational and ongoing manner.
- 2) A BACT analysis is required for each pollutant from each emissions unit at the site: for those emissions units and pollutants subject to PSD control technology review, then the appropriate review and assessment, for the remainder, the state BACT analysis for each applies as if each emission unit/pollutant emitted combination were located in an attainment area within Texas. Please provide emissions estimates for the other emissions and include in that assessment why the emissions rates comply with state BACT requirements under 30 TAC Chapter 116.
- 3) Will there be any degassing or cleaning of any VLCC holds or platform based tanks or surge vessel? If so, please characterize and identify the regulatory requirements for such operations. Also, there was no indication that the surge vessel is actually vented to atmosphere. If it is, then how are emissions from that vent controlled?
- 4) Abrasive blasting or surface coating of platform or dockside vessels. If there are anticipated to be routine structure and/or equipment maintenance such as surface coating operations including abrasive blast cleaning, please characterize these sources, estimate the emissions, and identify rule applicability for the operations. In addition, if any crude oil washing is anticipated to be performed while the VLCC are moored to the SPM or in conjunction with the operation of the offshore site, please characterize those operations, any emissions from those operations, and associated monitoring, testing, recordkeeping, and reporting.
- 5) The PSD application page 4 references emergency diesel engines, but such engines are not elsewhere identified. Are these engines for normal power generation for the offshore facilities or are they emergency use only? For all engines, NSPS IIII would appear to require the control of SO<sub>2</sub> by limiting sulfur content of the fuel to 15 ppm as would state BACT for such units. Please explain how your emissions calculations included this consideration, or if they did not and should have, please include them.

- 6) The PSD permit application does not mention if there will be any emissions associated from startup, shutdown and maintenance activities. Does GulfLink anticipate Maintenance, Startup and Shutdown (MSS) emissions from sources located offshore? If so, EPA needs to ensure that these operating scenarios are properly included in the permit or they will be unauthorized. Typically, EPA will permit these emissions by either establishing a separate alternative BACT that applies during MSS, or we may include the emissions into an emission point as part of our BACT determination for that unit with the expectation that the unit will meet BACT limits at all times. For the permitting record, please provide additional information regarding the facility's MSS emissions and GulfLink's preference on how BACT for MSS emissions should be applied in the permit for the offshore operations. Please be sure to include information for all operational scenarios detailing MSS emissions and associated monitoring, testing, recordkeeping and reporting.
- 7) The PSD permit application does not provide a compliance monitoring strategy for the marine loading operation. EPA requests that GulfLink propose a monitoring, recordkeeping and reporting strategy to ensure enforceability of the BACT requirements pursuant to 40 CFR 52.21(n).
- 8) MACT EEEE, Organic Liquids Distribution, appears to apply to this proposed facility. If upon your review, it does apply, please identify any emissions limitations or standards and associated monitoring, testing, recordkeeping, or reporting requirements needed to assure ongoing compliance with the requirements. If the subpart does not apply to your proposed project, please provide the rationale as to why that is the case.
- 9) The VOC BACT analysis does include a reference to a ships operations best management plan which includes various references to practices to reduce the gas formation in the cargo tanks but the requirement appears to be a ship based requirement, not a facility based requirement. How are the management directives for the ship operations translated into control or assurance of compliance that can be exercised by the operator of the port? Since the actual requirement for ship operations vary from ship to ship, please identify how the permit would contain and the source implement binding BACT requirements (the emission limits and/or work practice requirements as well as the supporting monitoring, testing, recordkeeping, and reporting requirements) that would demonstrate ongoing compliance with the BACT determination.
- 10) The PSD permit application references using fugitive component emissions factors developed for Petroleum Distribution facilities. Since those sources are predominantly gasoline storage facilities, why was that chosen to reasonably represent the anticipated crude oil emissions? Further, you suggest taking emissions reductions credit for an AVO program that would appear to be impractical to implement for the SPMs that would be included in the suite of sources to monitor. Please provide more specific justification for LDAR program you propose, including the emissions rates and control effectiveness for this operation. Please also include if the proposed fugitive monitoring program will include monitoring for methane (CH<sub>4</sub>).

### **MACT Applicability**

- 11) Section 6.1 of the PSD application presents GulfLink's evaluation of MACT Subpart Y applicability to their proposed project while Appendix E provides more details of considerations

under Case-by-Case MACT (112(g)) applicability. In Appendix E, Texas GulfLink “asserts that the anticipated emissions are more appropriately considered through a case-by-case MACT analysis because:

- (1) the DWP proposed source does not fall within the types of sources or subcategories of sources covered by Subpart Y;
- (2) VCUs and VRUs are not “achieved in practice” for a DWP such as Texas GulfLink; and, most importantly,
- (3) the use of VRUs/VCUs on offshore platforms as would be required under Subpart Y raises serious safety concerns (i.e. safety being among the “non-air quality health impacts” that must be considered under any MACT analysis). Under a case-by-case MACT analysis, the only level of emissions control for similar sources “achieved in practice” is that achieved using submerged fill loading under a VOC Management Plans per MEPC.185(59) and MEPC.1/Circ. 680.”

Prior to GulfLink’s application submittal, on April 5, 2019 Rob Lawrence EPA Region 6 Policy Advisor for Energy Issues wrote a letter to Mr. Curtis E. Borland of the U.S. Coast Guard Vessel and Facilities Standards Division and Ms. Yvette Fields, Director, Office of Deepwater Ports & Offshore Activities concerning the applicability of MACT to offshore crude oil export facilities. We have attached a copy of the letter to these comments, in order for you to compare your design with the two types of project designs (i.e., fixed platform vs non-platform type designs) and how we view each design in terms of Subpart Y applicability.

As recognized in your application (Footnote 4 of Appendix E of the PSD permit application) at least one other applicant has represented a fixed platform and SPM based VLCC crude oil export terminal. The implication in the footnote appears to be that the other source is configured in a way that does not, in GulfLink’s perspective, leave enough of a safety margin as to distances, and because of the greater distances proposed by GulfLink between platform and SPM buoys compared to the referenced project’s buoys, technical problems preclude vapor recovery.

The project you propose can fall within the Transfer Losses Emissions source category when considering a 112(g) analysis. That category is one of five explicitly discussed in the December 27, 1996 preamble to the 112(g) final rule (61 FR 68384). EPA has previously stated that within a source category a wide variety of different sources are included and the differences may be due to variations in equipment operations, design, waste type, etc. In addition, the preamble to 112(g) directs us to consider transferrable technologies when establishing the minimum criteria for new sources. The supporting analysis for an evaluation of potentially transferrable technologies may be found in the 112(g) implementing regulations at § 63.43(d)(1)-(4). We note further that the use of VRUs/VCUs within the source category of Transfer Losses have been *achieved in practice* for other sources within the category. An evaluation of this potentially transferrable technology is needed to support this statement. With respect to your concerns of safety, we note that the USCG has promulgated regulations to address safety requirements. EPA regulations were established to provide uniform emission standards. Therefore, we encourage you to take into consideration the information EPA provided in our April 5, 2019 letter to U.S. Coast Guard as you reassess whether 40 CFR 63 - Subpart Y is applicable to GulfLink based on your project design or if you attempt to

further develop a more robust 112(g) analysis that would support a case by case 112(g) decision. Either way, the application is insufficient with respect to addressing hazardous air pollutant emissions.

### **Air Quality Analysis**

Please note that EPA is still evaluating the sufficiency of the Air Quality Analysis and will contact Texas GulfLink with any additional information requests. Also note, that many of these items could have been identified earlier as part of modeling protocol development discussions between the applicant and EPA, which did not take place in advance of the submittal of the PSD permit application. We look forward to working with you to address the comments and revise the air quality analysis, as needed.

- 12) Receptor Grid – Section 3.2 of the Air Quality Analysis report indicates that discrete receptors spaced 3 miles apart were placed along the Texas shoreline in the area closest to the proposed facility location with some additional fine grid receptors having 1 to 2 km spacing added in areas of higher modeled concentrations. This receptor grid is not sufficient for an air quality analysis completed in support of a PSD permit application because it does not account for the off-shore ambient air located over water. A new receptor grid centered on the proposed facility should be developed with a starting point for receptors located at the ambient air boundary. Revised modeling should be conducting using the revised receptor grid.
- 13) Health Effects Review – In accordance with the requirements of the Deepwater Port Act, the permit application should address all applicable requirements of the nearest state's permitting program, insomuch that those requirements do not conflict with federal requirements. Based on the proposed facility's location, the nearest state is Texas. Therefore, all applicable requirements of the Texas air permitting program should be addressed, including the requirement that an applicant conduct a health effects analysis to demonstrate that emissions of non-criteria pollutants from the facility will not adversely affect the public's health or welfare. A health effects review for the proposed facility, addressing air contaminants for which TCEQ has defined an effects screening level (ESL) should be completed and provided as part of the permit application.
- 14) State Property Line Standard Analysis – Similar to the requirement for the Health Effects Review, the facility's permit application should address the requirement that an applicant conduct a State Property Line Standard Analysis for SO<sub>2</sub>, H<sub>2</sub>S, and H<sub>2</sub>SO<sub>4</sub>, as applicable, to demonstrate that the resulting air concentrations from the facility's emissions will not exceed the applicable state standard. A state property line standard analysis for the proposed facility should be completed and provided as part of the permit application.
- 15) NO<sub>2</sub> cumulative analysis – Section 4.3 of the Air Quality Analysis report indicates that refined modeling was required to demonstrate compliance with the 1-hour NAAQS for NO<sub>2</sub>. It appears that as part of the refined modeling analysis, the applicant summed the modeled concentrations from the proposed facility with the background concentration from an existing air quality monitor. Please confirm if off-site inventory sources were also included in the modeling analysis? If so, please provide information on what sources were included/excluded from the cumulative analysis, including information regarding modeled emissions and distance to the proposed facility. If off-site

inventory sources were not included, the refined modeling analysis should be revised to account for the cumulative impacts from the proposed facility and any nearby off-site inventory sources, along with the background concentration. Without the inclusion of the nearby sources, the analysis is not adequate to demonstrate compliance with the 1-hour NAAQS for NO<sub>2</sub>.

- 16) Background Air Quality Data – Section 4.6 of the Air Quality Analysis report lists the monitoring stations proposed by the applicant to represent background concentrations. However, no information is provided in the report to demonstrate that the chosen monitor locations are representative of the proposed facility's location. This information is needed to justify the use of the monitoring data from these sites as background concentrations in the air quality analysis.
- 17) Modeling Files – A copy of all modeling input and output files should be submitted as part of the permit application to be included in the permit record and to facilitate EPA's review of the air quality analysis.

#### **Title V Federal Operating Permit Applicability and Application**

- 18) As part of your overall application package, you represent that the facility as proposed is subject to Title V operating permit program. However, that application section of the submittal is substantially incomplete and consists of only a brief overview of proposed rules that may apply, and emissions units that may be included, but does not include a detailed state and federal rule applicability review and no supporting emissions calculations, monitoring, testing, recordkeeping or reporting requirements. Nor does it contain an initial compliance plan and does not include a Responsible Official Signed and dated application form. Is it your intent to apply and concurrently seek the development of both a PSD and Title V permit? If so, please submit a full and complete Title V application. At present, the information presented is substantially incomplete; a full and complete application must be submitted in order for us to act on the proposal.

**Attachment**

Marine Vessel Loading Letter

April 5, 2019

From  
Rob Lawrence  
US EPA Region 6

to

Mr. Curtis E. Borland  
U.S. Coast Guard (CG-OES-2) Vessel and Facilities Operating

Ms. Yvette Fields  
Deepwater Ports & Offshore Activities Maritime Administration (MAR-530)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 6  
1445 ROSS AVENUE, SUITE 1200  
DALLAS, TX 75202-2733

April 5, 2019

Mr. Curtis E. Borland  
U.S. Coast Guard (CG-OES-2)  
Vessel and Facilities Operating  
2703 Martin Luther King, Jr. Avenue, SE  
Washington, DC 20593-7509

Ms. Yvette Fields, Director  
Office of Deepwater Ports & Offshore Activities  
Maritime Administration (MAR-530)  
1200 New Jersey Avenue, SE  
Washington, DC 20590

RE: Marine Vessel Loading emissions

Dear Mr. *Curtis* Borland and Ms. *Yvette* Fields:

Starting in late 2017 when the Maritime Administration and the U.S. Coast Guard were first hearing from potential applicants for licenses under the Deepwater Port Act to construct and operate crude oil export terminals in Federal waters of the Gulf of Mexico, I shared that EPA had not, up to then, permitted facilities of that type and therefore, had not addressed the emissions from the marine vessel loading operations. Since then, especially as individual projects with varying designs and complexities were proposed, EPA has held a number of internal deliberations.

Recently we have had significant discussions with EPA senior management in the Office of Air and Radiation (OAR) regarding the pending crude oil export projects. We are providing an update with respect to the current projects where we have pending air permit applications [Enterprise Products Sea Port Oil Terminal (SPOT) and Texas Gulf Terminals Incorporated (TGTI)].

At this time, we have declared the Enterprise Products SPOT Prevention of Significant Deterioration (PSD) air permit application complete and we will soon start development of our draft PSD/Title V permit where we intend to apply as applicable requirements the provisions of 40 CFR § 63 – Subpart Y for Marine Tank Vessel Loading Operations based on the design of their project, including the construction and use of a platform structure to facilitate loading operations at their offshore loading terminal.

With respect to TGTL, we currently intend to proceed forward proposing an action on their Clean Air Act Section 112(g) case-by-case maximum achievable control technology (MACT) application based on the design of their project (single point mooring buoy without a platform structure) and the anticipated receipt of some additional speciation information on their hazardous air pollutant (HAP) emissions.

As we proceed forward on these projects, we would encourage other prospective applicants to evaluate how their marine tank vessels loading project compares to these two differently designed projects, with or without a platform structure, in determining how to address or control HAP emissions.

Please contact me or Jeff Robinson, Air Permits Branch Chief, if you have questions regarding this information.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Rob', is positioned above the typed name.

Robert D. Lawrence  
Policy Advisor – Energy Issues  
EPA Region 6